

PARAMETER TITLE: Orbital Lifetime, Mars

VALUE	
UPPER	See Below
ACCEPTABLE	See Below
LOWER	See Below

APPLICATION	
MISSION	Orbiter
CATEGORY	III
PLANET	Mars

PARAMETER DEFINITION: Date prior to which Category III spacecraft, or subsystems thereof, intended to orbit Mars shall not impact the planet, to the probability of impact specification.

APPLICABLE SOURCE: Those associated with orbiter spacecraft or orbiting portions of other mission types.

CONSTRAINTS: Orbit characteristics shall be such that $P_{I,max}$ for the mission shall be met until twenty years from the launch of the mission. Between 20 and 50 years from launch, the spacecraft shall remain in orbit with an assurance ≥ 0.95 .

All Mars orbiter spacecraft which do not satisfy these requirements must comply with a total bioburden (surface, mated, and encapsulated) requirement of 5×10^5 spores.

Planetary Protection Officer

Date